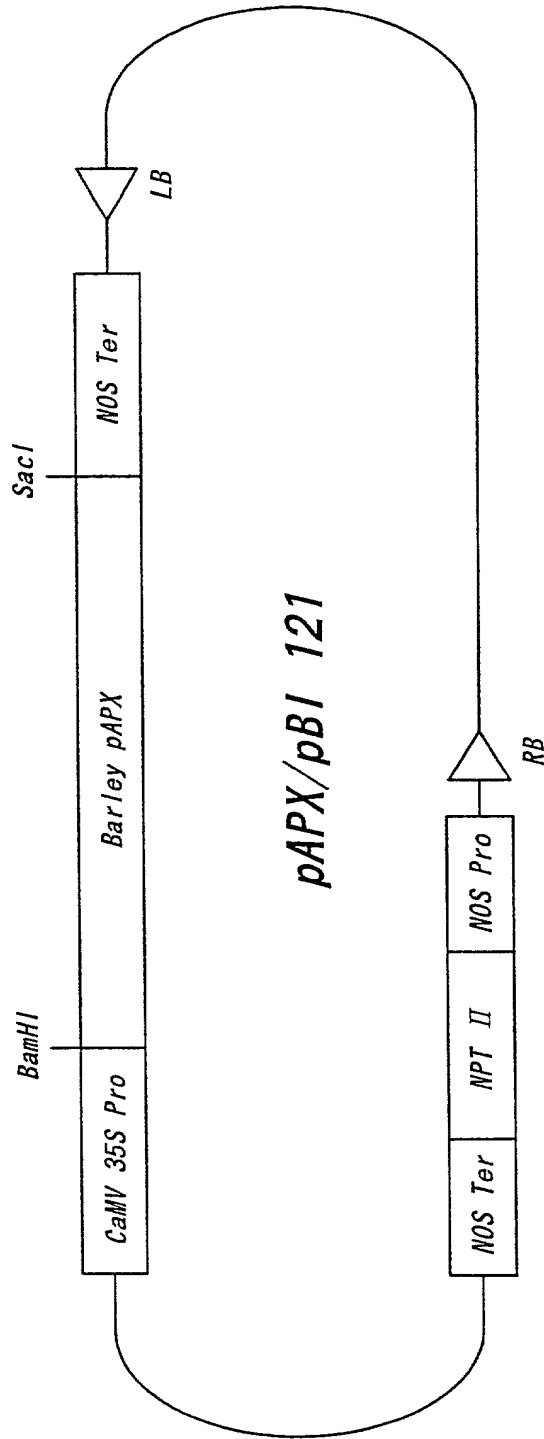


FIG. 1



*FIG. 2*

CTTCTAGGGTTCGTCGCGATGGCGGGCTCCGGTGGTGGACGCCGAGTACCTGCGCCAGGTC  
M A A P V V D A E Y L R Q V  
GACAGGGCGCGCCGCGCCTTCCGTGCCCTCATCGCCTCCAAGGGATGCGCCCCCATCATG 120  
D R A R R A F R A L I A S K G C A P I M 34  
CTCCGCTCGCATGGCATGATGCTGGCACCTATGATGTGAACACAAGAAGTGGTGGTGCA  
L R L A W H D A G T Y D V N T R T G G A  
AATGGTTCAATTAGATACGAGGAAGAGTACACCCATGGTTCAAATGCTGGCTTAAAAATT 240  
N G S I R Y E E E Y T H G S N A G L K I 74  
GCTATTGATCTCCTTGAGCCTATTAAAGCGAAGCATCCAAAGATTACATATGCAGACCTT  
A I D L L E P I K A K H P K I T Y A D L  
CATCAGCTTGCCGGAGTAGTTGCAGTTGAAGTCACCGGGGGTCCAACCGTTGAGTTCATC 360  
H Q L A G V V A V E V T G G P T V E F I 114  
CCTGGAAGACGTGATTCGTTCAGTTTGTCCCGTGAAGGACGCCTTCCTGATGCTAAGAAA  
P G R R D S S V C P R E G R L P D A K K  
GGTGCACCACATCTAAGGGACATCTTTTATCGAATGGGGTTAACAGACAAAGATATTGTA 480  
G A P H L R D I F Y R M G L T D K D I V 154  
GCACTATCTGGGGGGCACAGCCTGGGAAAGGCGCATCCTGAAAGGTCTGGGTTTGACGGT  
A L S G G H S L G K A H P E R S G F D G  
GCATGGACTCGTGACCCTCTGAAATTTGACAACCTCATACTTTCTTGAGCTACTGAAAGGG 600  
A W T R D P L K F D N S Y F L E L L K G 194  
GAATCTGAGGGTCTTCTGAAGCTCCCTACTGATAAGGCATTGTTGGATGATCCTGAATTT  
E S E G L L K L P T D K A L L D D P E F  
CGACGCTATGTGGAGCTTTTATGCAAAGGATGAGGATGTTTTCTTCAAGGACTACGCTGAA 720  
R R Y V E L Y A K D E D V F F K D Y A E 234  
TCACACAAAAAATTTCTGAACCTTGGCTTCACACCACGGAGCAGTGGCCCAGCATCTACA  
S H K K L S E L G F T P R S S G P A S T  
AAATCAGATGTTTCAACTGCTGTTGTACTTGACAGAGTGCAGTCGGGGTAGCAGTTGCT 840  
K S D V S T A V V L A Q S A V G V A V A 274  
GCAGCTGTAGTTATCGCGGGCTACCTGTACGAAGCTTCCAAGAGGAGCAAGTAAGGGGTT  
A A V V I A G Y L Y E A S K R S K \* 291

CGTGAGTTCTTGATGACATTCCCTTATTTAGTAAGTATCAAGTTATTATTCTAAAAAAA 960  
TAAGTGCCAAGTGCAAATAACAGAACTCTAGTGATGAACAACCAACAGTAGTCTCAAAAT  
ATTTACATATTCTTGAGGACATCTCCTTCATATATATACATCATACTTGAATAAAAAAA 1080  
AAAAAAA 1089

FIG. 3

pAPX	MAAPVVDAAEYL RQVDRARRAFRAALIASKGCAPIMRLRLAWHDAGTYDVNTRTGGCA
gAPX	MAFPVVDTEYLKEIDKARRDLRALIALKNCAPIMRLRLAWHDAGTYDVSTKTGGCP
APX3	MAAPIVDAEYLKEITKARRELRSLIANKNCAPIMRLRLAWHDAGTYDAQSKTGGP
pAPX	NGSIRYEEEEYTHGSGNAGLKIAIDLLEPIKAKHPKITIYADLHQLAGVVAVEVTGG
gAPX	NGSIRNEEEEEYTHGANGSLKIAIDFCEEVKAKHPKITIYADLYQLAGVVAVEVTGG
APX3	NGSIRNEEEEEYTHGANGSLKIAIDLCCEGVKAKHPKITIYADLYQLAGVVAVEVTGG
pAPX	PTVEFI PGRRDSSVCPREGRLPDAKKGAPHLRDI EYRMGLTDKDIVALSGGHSLSL
gAPX	PTIDFVPGRKDSNICPREGRLPDAKRCGAPHLRDI EYRMGLSDKDI VALSGGHSLSL
APX3	PDIVFVPGRKDSNVCPKEGRLPDAKQCFQHLRDI EYRMGLSDKDI VALSGGHTLL
pAPX	GKAHPERSGFDGAWTRDEPLKFDNSYFL ELLKGESEGLLKLPDTPDKALLDDPEFRR
gAPX	GRAHPERSGFDGCPWTNEPLKFDNSYFL ELLKGESEGLLKLPDTPDKALLDDPEFRRK
APX3	GRAHPERSGFDGCPWTQEPFLKFDNSYFVVELLKGESEGLLKLPDTPDKTLLLEDPEFRR
pAPX	YVELYAKDEDVFFKDYAESHKKLSELGETPRSSGPASTKSDVSTAVVLAQSAVAG
gAPX	YVELYAKDEDAFFRDYAESHKKLSELGETPTTSARSKVMVKD-ST-V-LAQCAVAG
APX3	LVELYAKDEDAFFRDYAESHKKLSELGENPNSSAGKA-VAD-STI--LAQSAFG
pAPX	VAVAAAVV IAGYLVEASKRSK
gAPX	VAVAAAVV ILSYFYEVRKRMK
APX3	VAVAAAVVAFGYFYEIRKRMK

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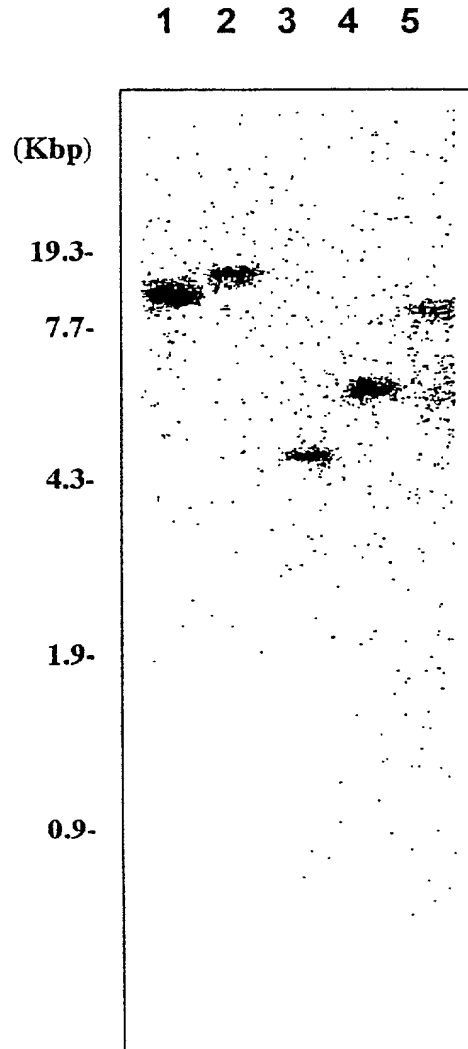
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TEMPERATURE STRESS AND A TRANSGENEIC PLANT EXHIBITING  
THERMOTOLERANCE

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# FIG. 4



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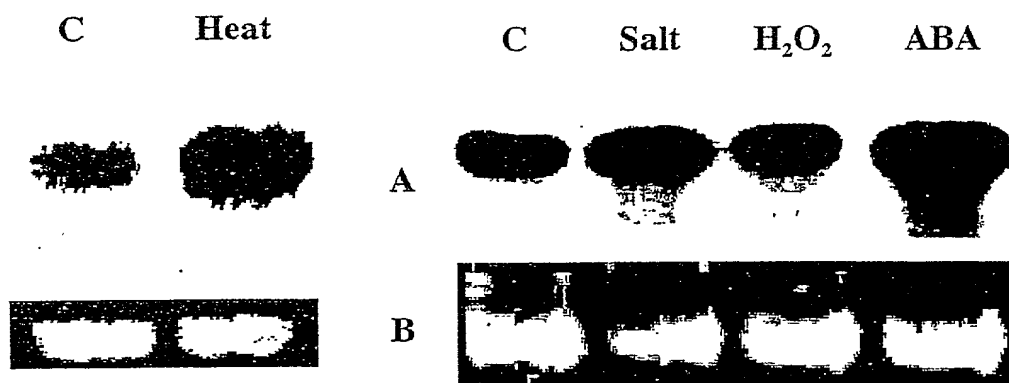
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## FIG. 5



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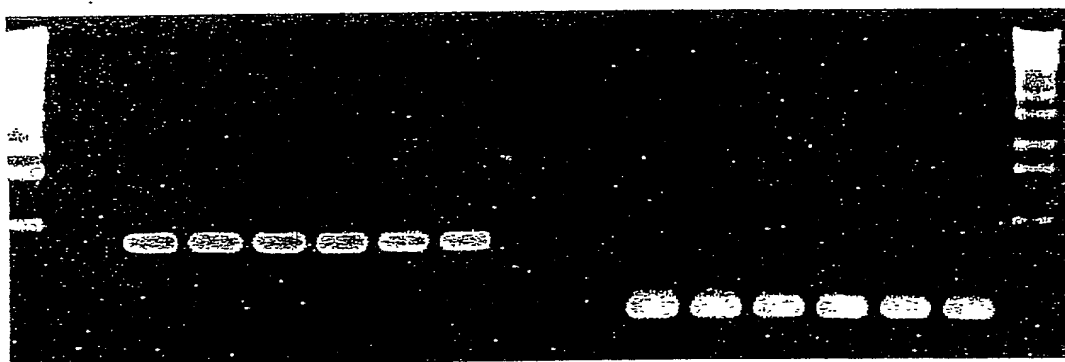
INVENTOR(S): TETSUKO TAKABE

APPLICATION SERIAL NO: UNASSIGNED

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## FIG. 6

M\_WT pAPX1 pAPX2 pAPX3 pAPX5 pAPX7 pAPX8 \_ WT pAPX1 pAPX2 pAPX3 pAPX5 pAPX7 pAPX8 \_M



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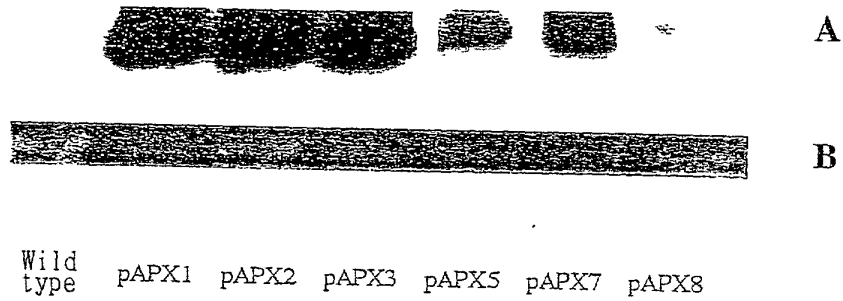
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THERMOTOLERANCE

INVENTOR(S): TETSUKO TAKABE

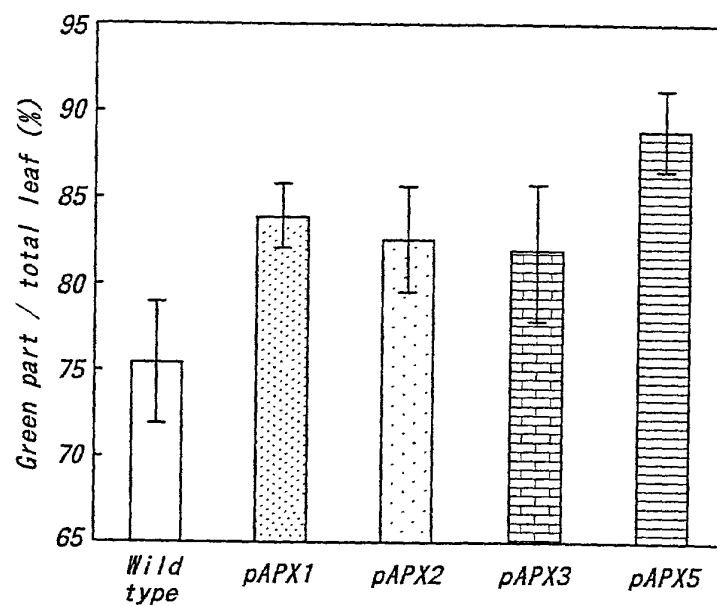
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## FIG. 7



**FIG. 8**





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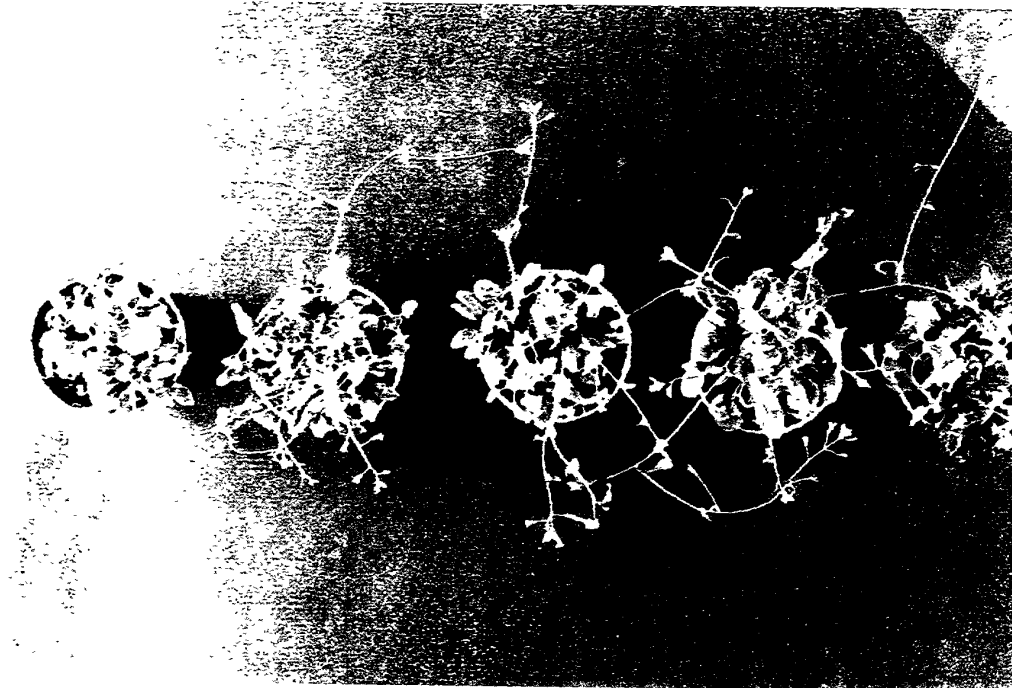
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THERMOTOLERANCE

INVENTOR(S): TETSUKO TAKABE

APPLICATION SERIAL NO: UNASSIGNED

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*FIG. 9*



Wild type

pAPX1

pAPX2

pAPX3

pAPX5